

Abstract of the Disclosure

The subject invention relates to compounds and compositions which induce transcription of the *nolA* gene in nitrogen-fixing bacteria, such as *Bradyrhizobium japonicum*. Novel bacterial strains which are insensitive to NolA, soil inoculants comprising NolA insensitive bacteria and/or *nolA* inducers, and methods of increasing nitrogen fixation in legumes are also disclosed.